

**REMARKS**

Claims 1-41 are pending in the application. Claim 9 is cancelled. Claims 1-8, 10-41 are amended.

The title of the application has been amended to reflect the invention to which the claims are directed.

**Rejections**

**35 U.S.C. §112, second paragraph**

The Patent Office rejected Claims 2, 3, 5, 16-20, 22, 23 and 34-38 under 35 U.S.C. §112, second paragraph. Claims 2, 3, 5, 16-20, 22, 23, 34-38 were amended and now are in compliance with 35 U.S.C. §112, second paragraph. Withdrawal of the rejection and allowance of the claims is respectfully requested.

**35 U.S.C. §102(b)**

The Patent Office rejected Claims 1-4, 6, 9, 11-14, 21-25, 27 and 29-32 under 35 U.S.C. §102(b) over U.S. Patent No. 5,991,044 to Zhang et al. ("Zhang patent"). Applicants disagree and respond as follows.

It is well established that a claim is anticipated under 35 U.S.C. §102, only if each and every element of the claim is found in a single prior art reference<sup>1</sup>. Moreover, to anticipate a claim under 35 U.S.C. §102, a single source must contain each and every element of the claim "arranged as in the claim."<sup>2,3</sup> Finally, missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference.<sup>4</sup> If each and every element of a claim is not found in a single reference, there can be no anticipation. After review of the Zhang patent, Applicant's attorney has been unable to find any disclosure of a method for optical-light scanning of a specimen using a scanning microscope, as claimed in amended Claim 1. For

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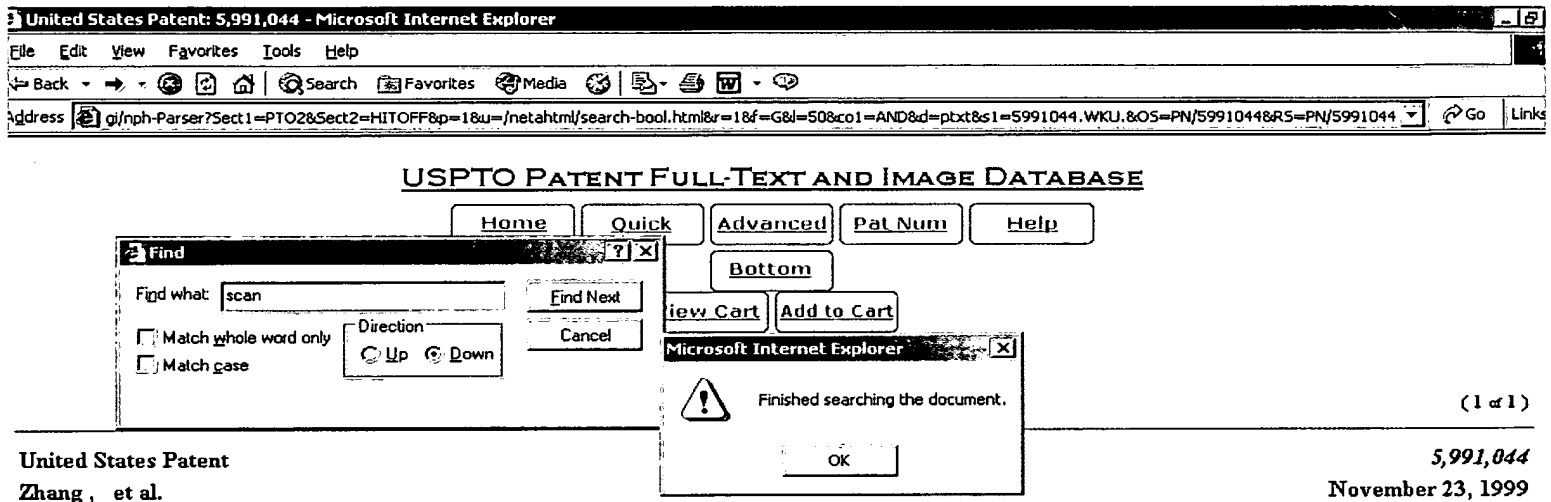
<sup>1</sup> *Veregal Bros. v Union Oil Co. of California*, 814 F.2d 628, 631, 2USPQ2d 1051, 1053 (Fed. Cir. 1987).

<sup>2</sup> *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 19).

<sup>3</sup> *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q. 2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988).

<sup>4</sup> *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

example, as follows from a screen shot below, not a single occurrence of the word "scan" could be found in Zhang.



# Method and apparatus for determining characteristics of microstructures utilizing micro-modulation reflectance spectrometry

## Abstract

A method and apparatus for measuring the characteristics of microstructures by modulating a sample using a modulated source and utilizing a microscope to magnify a desired sample area and direct a monochromatic probe light source onto the desired microstructure of the sample. The probe light is reflected by the sample and the reflectance spectra is directed by the microscope and thereafter, is detected and transmitted to a computer to record or display the measured characteristic. Further, the computer is also used to control the brightness of the monochromatic probe light and to control the modulation frequency of the modulated source. The wavelength of the monochromatic probe light can also be varied by the computer. The magnification of the microscope can be varied so that the desired microstructure is visible and the probing light spot is precisely placed on it. The desired sample microstructure can be precisely located within the viewing field of the microscope through the use of an indicator like a cross line indicator.

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 Appl. No.: 869058

Similarly, after a review of the disclosure of the Zhang patent, no mention of means for scanning a focused light beam across a specimen region or an optical element for regulating the light beam intensity in a manner responsive to the current focus position could be found. Also, no disclosure of scanning a focused light beam across a specimen region and regulating the light beam intensity by an optical element positioned in the light beam in a manner responsive to the current focus position could be found in the Zhang patent.

Therefore, Applicants respectfully assert that amended independent Claims 1 and 21 are not anticipated by the Zhang patent. Amended Claims 2-4, 6, and 11-14 depend from amended

Claim 1 and are not anticipated by Zhang. Dependent Claims 21-25, 27, and 29-32 depend from amended Claim 21 and are not anticipated by Zhang. Withdrawal of the 102(b) rejection and allowance of the Claims is respectfully requested.

35 U.S.C. §103

The Patent Office rejected Claims 7, 8, 10, 26, 28 and 39-41 over Zhang. Applicant respectfully disagrees.

For an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a prima facie case of obviousness by establishing that all elements of the invention are disclosed in the Zhang patent. In accordance with *In re Lee*<sup>5</sup>, there must be an explicit suggestion, teaching or motivation for one of ordinary skill in the art to modify a reference or combine references, as well as a reasonable expectation of success.<sup>6</sup>

Following the teaching of *In re Lee*, Applicant's attorney studied the disclosure of the Zhang patent and has been unable to find any teaching, suggestion or hint to scanning a focused light beam across a specimen region to define a current focus position or of regulating the focused light beam responsive to the current focus position, as claimed in amended Claim 1. Additionally, Applicant's attorney has been unable to find any teaching, suggestion or hint to a scanning microscope with the means for scanning a focused light beam across a specimen region and an optical element for regulating the light beam intensity responsive to the current focus position, as claimed in amended Claim 21. It is therefore argued that independent Claims 1 and 21 as amended are not obvious over the Zhang patent. Claims 7-8 and 10 depend from now allowable Claim 1 and, therefore, are allowable. Claims 26, 28 and 39-41 depend from now allowable Claim 21 and, therefore, are allowable. Allowance of these Claims is respectfully requested.

It is also believed that dependent Claims 15, 33, 16-20 and 34-38 indicated by the Patent Office as allowable if rewritten to comply with section 112 now are in compliance with section

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<sup>5</sup> *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

<sup>6</sup> *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

112. It is also believed that dependent Claims 15, 33, 16-20 and 34-38 now depend from allowable independent Claims and are in condition for allowance, which is respectfully requested.

**CONCLUSION**

The Examiner is kindly invited to telephone the undersigned to resolve any questions to expedite the allowance of the pending Claims. The listing of all Claims is presented as a complete marked-up listing (without the clean version) in accordance with the Pre-OG Notice of the Office of Patent Legal Administration of 1-31-03  
(<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/revamdtprac.htm>).

Respectfully submitted,

Dated: \_\_\_\_\_

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